DETAILED ACTION

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tong Wu on 09/11/2009.

Claims 9 and 10 have been replaced as follows:

Claim 9 (Currently amended) The method as claimed in claim [[8]] 1, wherein said active state of the uplink and downlink RF amplification control signals are indicated by a high level, and said inactive state by a low level.

Claim 10 (Currently amended) [[A]] The method as claimed in claim [[8]] 1, wherein, in step C, said control closing the downlink channel when the uplink channel is open performs as follows:

firstly, the downlink RF amplification control signal (PA_EN1) switched into inactive state allows the downlink of power amplification to be close, then the uplink channel is opened and the downlink channel is closed by the receive and transmit control signal (SW), and finally the uplink RF amplification control signal (PA_EN2) switched into active state enables the uplink of the power amplification; and said control closing the uplink channel when the downlink channel is open performs as the following:

firstly, the uplink RF amplification control signal (PA_EN2) switched into inactive state allow the uplink of the power amplification to be closed, then the downlink channel is opened and the uplink channel is closed by the receive and transmit control signal (SW), and the finally downlink RF amplification control signal (PA_EN~I) which is switched into active state enables the downlink of power amplification.

[End Amendment]

Allowable Subject Matter

1. Claims 1-6, 9-12, 14, 16-21 are allowed, and have been renumbered for printing.

2. The prior art made of record and relied upon by the Examiner fails to teach or even suggest "a method for repeating wireless signals bidirectionally and synchronously, which is applied to a TDD wireless communication system comprising a base station and a terminal device, wherein said method comprises:

step A: obtaining synchronization information of said system from wireless signals emitted from said base station;

step B: generating reference control signals accurately synchronized with the base station according to the obtained system synchronization information and the system time slot configuration information;

step C: processing said reference control signals accurately synchronized with the base station respectively to generate a plurality of time sequential control signals to

control the uplink RF amplification, the downlink RF amplification and the receiving and transmission respectively, thereby controlling the downlink channel to be closed when uplink channel is open and the uplink channel to be closed when the downlink channel is open, so as to repeat signals emitted from the uplink/downlink channel between said base station and terminal devices bidirecitonnally and synchronously; wherein said sequential control signals described in step C are obtained by logically converting and delaying said reference control signals accurately synchronized with the base station; said logical conversion and delay indicate concretely: delaying the downlink RF amplification control signals, the uplink RF amplification control signals, and the receive- and transmit control signals respectively, so that: when switching from the downlink enable to the uplink enable, the downlink RF amplification control signal (PA EN1) is firstly switched into an inactive state, then the receive and transmit control signal (SW) is switched to allow the uplink channel to be open, and finally the uplink RF amplification control signal (PA_EN2) is switched into an active state; and when switching from the uplink enable to the downlink enable, the uplink RF amplification control signal (PA EN2) is firstly switched into an inactive state, then the receive and transmit control signal (SW) is switched to allow the downlink channel to be open, and finally the downlink RF amplification control signal (PA EN1) is switched into active state" as recited independent claim 1.

2. Claims 2-6 and 9-10 depend on allowed base claim 1, hence, these claims are also allowed.

3. In addition, the prior art made of record and relied upon by the Examiner fails to teach or even suggest the following: "An apparatus for repeating wireless signals bidirectionally and synchronously, wherein, said apparatus comprises: a receiving antenna for base station signals, a receiving antenna for terminal device signals, a frequency selection and bidirection RF amplification circuit, and a synchronization extraction and control device, wherein, the synchronization extraction and control device receives wireless signals emitted from the base station by the receiving antenna for base station signals, generates sequential control signals by using these wireless signals and the system time slot configuration information, and transmits the sequential control signals to the frequency selection and bidirection RF amplification circuit; and the frequency selection and bidirection RF amplification circuit receives wireless signals emitted from the base station by the receiving antenna for base station signals, opens the downlink channel while closes the uplink channel, amplifies and filters these wireless signals according to the sequential control signals transmitted from the synchronization extraction and control device, then repeats the amplified wireless signals to terminal devices by the receiving antenna for terminal devices signals; receives wireless signals emitted from terminal devices by the receiving antenna for terminal device signals, opens the uplink channel while closing the downlink channel, amplifies and filters these wireless signals according to the sequential control signals transmitted from the synchronization extraction and control device, and then repeats the amplified wireless signals to the base station by the receiving antenna for base station

signals; wherein said frequency selection and bidirection RF amplification circuit comprises: a first filter, a second filter, a first: receive and transmit switch, a second receive and transmit switch, a power amplification device for uplink signals, and a power amplification device for downlink signals

4. said first and second receive and transmit switch being used for opening the uplink channel and closing the downlink channel or for opening the downlink channel and closing the uplink channel under the control of the sequential control signals, the power amplification device for uplink signals and the power amplification device for downlink signals being in on state and in off state respectively under the control of the sequential control signals when the uplink channel is opened, and the power amplification device for uplink signals and the power amplification device for downlink signals being in off state and in on state respectively under the control of the sequential control signals when the downlink channel is opened, wherein, for the uplink channel: a wireless signal emitted from terminal devices and received by the receiving antenna for terminal device signals is filtered by the second filter, then transmitted to the power amplification device for downlink signals through the second receive and transmit switch and amplified, the amplified wireless signal is transmitted to the first filter through the first receive and transmit switch and filtered, next the amplified wireless signal after being filtered is transmitted from the first filter to the receiving antenna for base station signals and emitted to the base station by means of the receiving antenna for base station signals; and for the downlink channel: a wireless signal emitted from the base station and received by the receiving antenna for base station signals is filtered by the

first filter, then transmitted to the power amplification device for uplink signals through the first receive and transmit switch and amplified; the amplified wireless signal is transmitted to the second filter through the second receive and transmit switch and filtered; the second filter transmits the amplified wireless signal after being filtered to terminal devices by means of the receiving antenna for terminal device signals; said downlink power amplification device comprises: a first to fourth power amplifier, a first converter, a second converter, a first SAW filter, and a first variable gain regulator, wherein, a signal emitted from the base station is transmitted to the input terminal of the first power amplifier through the first receive and transmit switch, then amplified by the first power amplifier, and next down-converted to IF signals by the first converter; after being amplified by the second amplifier, IF filtered in the first SAW filter, level- regulated by the first variable gain regulator, amplified by the third amplifier, up-converted to RF signals by the second converter, and amplified by the fourth amplifier, the signal emitted from this base station reach a predetermined level and then transmitted through the second receive and transmit switch; and said uplink power amplification device comprises: a fifth to eighth power amplifier, a third converter, a fourth converter, a second SAW filter, and a second variable gain regulator, wherein a signal emitted from terminal devices is transmitted to the input terminal of the fifth power amplifier through the second receive and transmit switch, then amplified by this power amplifier, and next down-converted to IF signals by the third converter; after being amplified by the sixth amplifier, IF filtered in the second SAW filter, level-regulated by the second variable gain regulator, amplified by the seventh amplifier, up-converted to RF signals by the

fourth converter, and amplified by the eighth amplifier, the signal emitted from the terminal devices reaches a predetermined level and then transmitted through the first receive and transmit switch" recited in independent claim 11.

5. Claims 12, 14, 16-21 depend on allowed base claim 11, hence, these claims are also allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAK R. JAMA whose telephone number is (571)270-5887. The examiner can normally be reached on Monday-Thursday; 4-10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/IRJ/

/LESTER KINCAID/

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